How to Use Telehealth to Improve Outcomes: Banner Health’s Experience with Patients in its Pioneer ACO

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Julie Reisetter, MS, RN
CNO, Banner Telehealth

Objectives

• Describe and identify economic incentives and outcomes for the program and selection criteria for including patients.

• Illustrate the clinical care models used at Banner iCare™

• Discuss the role of technology improving outcomes and clinical efficiency
PHOENIX (August 19, 2015) – Banner Health Network has delivered its best-ever result in a third successful year as part of the Pioneer Accountable Care Organization. The Center for Medicare and Medicaid Innovation reports that in Performance Year 3 (2014), BHN returned more than $29 million in savings over the predicted financial benchmark, while at the same time improving its quality score by nearly 10 percent over the previous year.

- The savings returned represents a 5 percent savings in the overall cost of care for the 61,200 traditional Medicare beneficiaries attributed to BHN in 2014. A portion of this savings ($18,000,000) will be made available to BHN to provide for ongoing infrastructure improvements and related administrative costs.


Banner Telehealth Network

Mesa, AZ
Santa Monica, CA
Denver, CO
Tel Aviv, Israel

Major telehealth service lines include:
- TeleICU (2006)
- TeleAcute (2010) BGMC, BIMC and BFCMC
- Banner iCare™ (2013)
- TeleStroke (2014)
- Telebehavioral Health (2014)
- Telemedicine Specialty Consults (2015)

Acute Care Results

Critical Care
- ICU length of stay reductions: 30,986 days
- Savings estimate based on LOS reductions: $83,860,520
- Improvements in risk-adjusted mortality: Estimated approximately 2,000 lives saved beyond Apache prediction

Medical / Surgical
- LOS reduction medical patients from 4.16 to 3.64 days
- LOS outliers for same population dropped from 18.5% to 13.5%
- LOS reduction surgical patients from 3.8 to 3.06 days
- LOS outliers for same population dropped from 15.2% to 8.7%
- The case mix index rose from 1.78 to 1.99 over this same period

Banner iCare™

Design concept
- Extension of the TeleICU and TeleAcute care model- TeleHealth team manages highest risk, highest cost outpatients

Care model
- ‘Perpetual’ management of high risk patients with chronic health conditions
  - Targeted population (top 5%) with high intensity, home-focused care
  - Dedicated iCare team (physicians, nurses, pharmacists, coaches, MSW, quarterbacks) provides coordinated, proactive care

Structure
- Advanced data tools and in home devices enable daily patient assessment and centralized patient management from Telehealth center
- High touch services for patient education and support
Evolution of Eligibility

Initial screen:
• Banner Health Network member and
• High risk flag - 2 chronic conditions and either 2+ IP visits (last 12 months) or 3+ Observation/ED visits (last 12 months)

Not quite…

Secondary screen by iCare provider:
• Life expectancy > 12 months
• Poorly controlled disease process defined
• Psycho-social issues

Not quite…

5 or more chronic + utilization factor

Home Devices

• Patient Telehealth Station
• Scale
• Blood Pressure Cuff
• Pulse Ox
• Glucometer
• Rhythm Strip Recorder
• Thermometer
• Lifeline (fall alert)
Role of the Telehealth Team

- Respond to requests for assistance from the member
- Monitor for adverse trends and intervene before those adverse trends become adverse events
- Implement “best practices”
- Continuous learning and improvement

THE FIVE ROLES OF A HEALTH COACH

<table>
<thead>
<tr>
<th>Self-management support</th>
<th>Bridge between clinician and patient</th>
<th>Navigation of the health care system</th>
<th>Emotional support</th>
<th>Continuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Providing information</td>
<td>Serving as the patient’s liaison</td>
<td>Connecting the patient with resources</td>
<td>Showing interest</td>
<td>Providing familiarity</td>
</tr>
<tr>
<td>Teaching disease-specific skills</td>
<td>Ensuring that patient understands and agrees with care plan</td>
<td>Facilitating support</td>
<td>Inquiring about emotional issues</td>
<td>Following up</td>
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<tr>
<td>Promoting behavior change</td>
<td>Providing cultural and language-concordance</td>
<td>Empowering the patient</td>
<td>Showing compassion</td>
<td>Establishing trust</td>
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<tr>
<td>Imparting problem-solving skills</td>
<td></td>
<td>Ensuring the patient’s voice is heard</td>
<td>Teaching coping skills</td>
<td>Being available</td>
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<tr>
<td>Assisting with the emotional impact of chronic illness</td>
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<tr>
<td>Encouraging follow up</td>
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<tr>
<td>Encouraging participation</td>
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Benefits To Banner

<table>
<thead>
<tr>
<th>Benefit Areas</th>
<th>Expected Benefits</th>
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</thead>
</table>
| **Reduce Costs of Providing Care** | • Reduce avoidable Emergency Department visits  
• Avoid costs of readmission within 30 days  
• Reduce inpatient hospital admissions  
• Reduce admissions to Skilled Nursing Facilities  
• Reduce length of stay for patients admitted to SNFs  
• Reduce duplicate and avoidable radiology and lab tests  
• Reduce sub-specialty consultations  
• Improve productivity of Primary Care Physicians and nursing staff  
• Increase generic utilization for certain drugs |
| **Improve Quality of Patient Care** | • Improve prescription fill rates  
• Improve compliance with prescribed medication usage  
• Reduce impacts of adverse drug events  
• Reduce length of stay for patients admitted to acute care |
| **Improve Provider Efficiency / Satisfaction** | • Improve satisfaction by removing complex patients from majority of PCP's patient panels  
• Improve Home Health nurse retention rates  
• Provide care team with challenging opportunities |
| **Improve Patient Satisfaction** | • Improve patient quality of life by delivering more care at home  
• Improve patient quality of life by avoiding hospital or institutional facility admissions  
• Improve patient satisfaction by making healthcare resources easy to access and understand  
• Improve patient satisfaction by automating home health devices |

Major 2014 Accomplishments

• Adopting support model markedly increased enrollment  
• Members have embraced health coaches; high satisfaction levels  
• iCare team is jelling and becoming comfortable with roles  
• Lots of clear ‘wins’ validates major opportunity to improve health status, quality of life and reduce healthcare costs  
• Despite challenges, technology has worked surprisingly well  
  - Members able to use tablets/tools  
  - Effective provider team tool set
Challenges & Lessons Learned

- Changes in program structure and recruitment strategy (inpatient) precipitated need for new processes
  - need to anticipate consequences of program changes
- Novelty of team-based multi-disciplinary care model created uncertainty about roles and slowed team maturation
  - Major investment required to help team master new roles and work together effectively
- Initially lack of validated workflows and immature software contributed to team inefficiency – reactive vs proactive
  - Understand challenges inherent in doing new things, provide lots of support, create needed documentation, anticipate slow maturation

Other Learnings

- Scaling from small pilot to mission-critical program requires robust processes
  - Non-clinical operations (equipment deployment and support)
  - IT support (interfaces, change management)
- Nail down data definitions and processes to address:
  - Align on definitive claims data source
  - Define analysis methodology (program start date, relevant sub-groups, comparators)
  - Create reliable data extract / transfer process
  - Review data regularly to assure alignment with all stakeholders
Reduced total costs of care by 27%

Reduced acute and long term care costs by 32%

Reduced hospitalizations by 45%

Pre-enrollment: 11.5 acute and long-term hospitalizations/100 patients/month
Post-enrollment: 6.3/100 patients/month.

Pre-enrollment: 7.7 short term hospitalizations/100 patients/month
Post-enrollment: 4.9/100 patients/month

Pre-enrollment: 3.9 long term care, home health, other facility stays/100 patients/month
Post-enrollment: 1.4/100 patients/month

Pre-enrollment: 90.2 average number of days in hospital/100 patients/month
Post-enrollment: 65.8/100 patients/month
**Leverage learnings for health**

- Continuous process improvement
- Unparalleled Services – personal
- Effective & efficient onboarding
- Enroll appropriate members
- Home is the locus of care

**Strategies**

- Home is the focus of care
- Enroll appropriate members
- Effective & efficient onboarding
- Proactive care (utilization of Philips tools, workflow standardization, incorporation of EBP, CCG & best practices)
- Unparalleled Services – personal attention to psycho-social needs, environment
- Continuous process improvement program iteration
- Leverage learnings for health management

**Vision**

“We will be a national leader in Ambulatory Telehealth recognized for clinical excellence and innovation, preferred for a highly coordinated member experience, and distinguished by the quality of our people”

**Mission**

We exist to make a difference in people’s lives through innovative ambulatory care models

**Processes**

- Standard operating practices for:
  - Recruitment
  - Member onboarding (holistic)
  - Proactive care activities
  - Clinical escalation
  - Patient engagement
  - Provider communication
  - Data collection / analysis

**Technology**

- Consistent utilization of Philips tools
- Maximize interfaces to any and all other systems to minimize redundancy & increase communication
- Robust reliable systems and processes

**Clinical Operations**

- DOI reliable and efficient care practices – acute issues, proactive services, psycho-social Standard 30 day post-discharge program
- Patient Engagement
  - Appropriate communication schedule
- Non-Clinical Operations
  - DOI reliable and efficient non-clinical operations

**Analytics, Reporting & BI**

- Advanced analytics methodology, reliable data mgmt process and joint data reviews
- Actionable clinical and operational reports

**Research**

- Implement patient assessment tools
- Refine member selection process
- Enhance member satisfaction

**Technology**

- Cerner interfacing
- Prepare for eCC/eCP platform

**Strategic Direction**

**People**

- Provide Banner iCare team with clarity of business purpose and direction
- Empower the Banner iCare team to drive continuous improvements and execute the breakthrough initiatives
- Foster an environment of trust, teamwork and open communication
- Hold each other accountable for team goals and objectives

**2015 Breakthrough Initiatives / Projects**

- **Clinical Operations**
  - DOI reliable and efficient care practices – acute issues, proactive services, psycho-social Standard 30 day post-discharge program
- **Patient Engagement**
  - Appropriate communication schedule
- **Non-Clinical Operations**
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**Analytics, Reporting & BI**

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**Research**

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**Technology**

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**Measurable Results**

**Improve Quality of Life**

**Reduce Cost**

- 100% of appropriate members offered iCare program, 50% of appropriate BHN members enrolled
- <5% disenrollment of appropriate members
- Advanced Directives inpt. Chart; other ACO or Hedis metrics
- Reduction in total cost of care (claims data) factoring program cost
- Reduce hospital admissions by 30%
- Achieve 30-day hospital admission 50% better than LACE predicted rate
- Reduce ED visits by 20%
- Improve prescription fill rates
- Measure medication compliance and achieve TBD% rate
- Member satisfaction on CAPS tool at 80% very high or high
- Employee Engagement

**Enablers**

- Hold each other accountable
- Foster an environment of trust, teamwork and open communication
- Empower the Banner iCare team
- Provide Banner iCare team

**Initiatives / Projects**

- Prepare for eCC/eCP platform
- Cerner interfacing
- Advanced Directives
- Reliable Operations
- Proactive care activities
- Clinical escalation
- Patient engagement
- Provider communication
- Data collection / analysis

**BHN**

- <5% disenrollment of appropriate members
- 100% of appropriate members enrolled

**People**

- Employee Engagement
- Measure medication compliance and achieve TBD% rate
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**Process Stabilization**

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**Resource Intensive**

- <5% disenrollment of appropriate members
- 100% of appropriate members enrolled

**Optimization**

- Employee Engagement
- Measure medication compliance and achieve TBD% rate
- Reduce ED visits by 20%
- Improve prescription fill rates
- Reduce hospital admissions by 30%

**Innovative**

- Aligned member and clinician stratification
- Influence ACO Business Plan & Road Map
- Recognized as care differentiator
- Major Financial Contributor
- Industry leadership pioneers & influencers
- Blueprint for other programs

**LEVEL 2**

**Proactive**

- Care Process adherence & Stabilization
- Predictive modeling
- Highly Efficient and Reliable Operations
- Managed SLAs
- Integration across entire continuum of care
- Effective Capacity planning
- Advanced Program

**LEVEL 3**

**Reactive**

- Best Effort
- Embedded Standard
- Business “Value” Management
- People and Process Stabilization
- Operational Process Emergence

**LEVEL 4**

**Innovative**

- Cutting Edge Chronic & Wellness Programs
- Predictive modeling
- Highly Efficient and Reliable Operations
- Managed SLAs
- Integration across entire continuum of care
- Effective Capacity planning
- Advanced Program

**LEVEL 1**

**Chaotic**

- Ad hoc
- Uncoordinated
- Unpredictable
- Disjointed processes
- Inconsistent processes
- Inconsistent Care

**LEVEL 2**

**Reactive**

- Best Effort
- Embedded Standard
- Business “Value” Management
- People and Process Stabilization
- Operational Process Emergence

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- Effective Capacity planning
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If we are to achieve results never before accomplished, we must employ methods never before attempted.

Francis Bacon